

IN THE CLAIMS

Claim 1. (Currently Amended) A method of determining protection transmission unit allocations for flows of working traffic being carried on a working path through a communication network upon occurrence of failure on the working path that would require at least some of the flows of working traffic to be carried on a protection eyelet path on a the communication network, by nodes on the protection path eyelet, the working path and protection path being formed to collectively implement a protection cycle on the communication network, the method comprising the steps of:

distributing connection information associated with the flows of working traffic being carried on the working path that are to be protected by ~~on~~ the protection path eyelet to all nodes on the protection eyelet path before occurrence of a failure on the working path;

upon occurrence of a failure on the working path ~~protection-eyelet~~, individually determining, by each node on the protection eyelet path, which flows of working traffic on the working path are affected by the failure on the working path ~~protection-eyelet~~; and

individually determining, by each node on the protection eyelet path, ~~the~~ protection transmission unit allocations at that node for the flows of working traffic affected by the failure on the working path, from the connection information associated with the affected flows.

Claim 2. (Currently Amended) The method of claim 1, wherein the connection information comprises AZ A/Z information, where A represents the location where the flow enters the protection cycle and Z represents the location where the flow leaves the protection cycle.

Claim 3. (Original) The method of claim 2, wherein the connection information further comprises connection ID information.

Claim 4. (Previously Presented) The method of claim 1, wherein the protection cycle is a ring on the communication network.

Claim 5. (Previously Presented) The method of claim 4, wherein the step of determining the protection transmission unit allocation is performed only after receipt of notice of the failure on the ring.

Claim 6. (Canceled)

Claim 7. (Previously Presented) The method of claim 1, wherein the communication network is based on an optical transport technology which divides a total capacity of a link into time slots, and wherein the step of determining a protection transmission unit allocation comprises determining transmission time slots for the flows according to the connection information associated with the affected flows.

Claim 8-10. (Canceled)

Claim 11. (Previously Presented) The method of claim 1, wherein the protection cycle is a ring, wherein the nodes are nodes on the ring, and wherein the connections are connections that are provisioned through at least two nodes on the ring.

Claim 12. (Previously Presented) The method of claim 1, wherein the communication network is at least one of a SONET and SDH based network, wherein the protection cycle is at least one of a SONET ring and an SDH ring, and wherein the protection transmission unit allocation is a time slot on the SONET ring or SDH ring.

Claim 13. (Currently Amended) The method of claim 1, ~~wherein the protection cycle has a working path and a protection path,~~ wherein flows are transmitted in time slots on the working path, and wherein protection transmission units associated with protection transmission unit allocations are time slots on the protection path.

Claim 14. (Previously Presented) The method of claim 13, wherein the protection cycle has two working paths and two protection paths, wherein time slot interchange is permitted on each of the working paths, and wherein time slots are allocated on each of the protection paths.

Claim 15. (Previously Presented) The method of claim 14, wherein extra traffic may be carried on each of the protection paths, and wherein time slot interchange is permitted for the extra traffic on each of the protection paths.

Claim 16. (Currently Amended) The method of claim 1, wherein the communication network is a mesh network, wherein the protection path of the protection cycle is a logical restoration path on the mesh network.

Claims 17-19. (Canceled)

Claim 20. (Currently Amended) The node of claim 1, wherein the connection information ~~associated with flows on the protection cycle~~ further comprises connection size information associated with the connections.